JOURNAL

OF THE

ASIATIC SOCIETY OF BENGAL,

Vol. LXX. Part II.-NATURAL SCIENCE.

No. II.—1901.

VI.-Wolf Hybrids in Gilgit.-By MAJOR J. MANNERS-SMITH, V.C., C.I.E.

[Read 7th August, 1901.]

During the last few years, since about 1897 a species of wild dog, bred as it would seem from a true wolf and a domestic village dog has existed round the village of Minawar some 9 miles from Gilgit.

The first specimen which I saw was by moonlight at Jutial some 3 miles from Gilgit in December, 1898, or in January, 1899. At the time I mistook the beast for a wild dog (Cyon), it being evident from its general appearance that it was not a wolf; and I had not then heard of the hybrids.

The animal was exactly like the specimen the skin and skull of which was sent to the Indian Museum in May, 1901, and like a live bitch which is still in my possession and the photograph of which is attached.

The next specimen I saw was my bitch "Jungly." She was brought in as a puppy in May, 1899. In appearance she was sooty coloured with ears that drooped forward. The villagers who brought her declared that she was a wolf and that they had seen the mother distinctly. The other puppies with her some 4 or 5 in number had, they said, escaped. I unfortunately did not institute any enquiries at the time, still thinking that the puppy was that of a wild dog and that the villagers did not know or recognise the difference between wolves and wild dogs.

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Later on however when my bitch grew up examination proved by dentition, number of mammæ and other characteristics such as the lack of any marked brush in tail, and her abnormal weight for a true wild dog that she belonged to the genus *Canis* and not to *Cyon*. It thus became evident that she must be a 'hybrid' and I began to make enquiries at Minawar to try and verify facts.

Unfortunately no very certain or absolutely reliable evidence of the animal's pedigree has been obtained. It was a well known fact however as I learnt then and from subsequent enquiries that a female wild animal—the villagers declare it to be a bitch wolf—has for 3 years past in successive winters, *i.e.*, in 1898-99, 1899-1900, and now again in 1900-1901 when in season hung about the village precincts and has attracted the attentions of their village dogs. These have followed her some way from the village and from them she has been pleased to select a mate to satisfy her natural desires. This phenomenon has been seen and is vouched for by several reliable eye witnesses. For three years now the results of this strange union have been proved by the capture of the young cubs.

First in 1899, when my bitch was caught and brought in to me in May. The pups then were fairly big and several escaped, one only being caught.

Then in 1900, on this occasion all the pups some 8 or 9 in number were caught, but were killed by the goat herd boys who found them when quite small. As I happened to be away from Gilgit no report was made to me at the time and no specimens of the puppies were kept to show.

Finally this year in 1901. First the pups were caught and brought in to Gilgit and a few days after the mother. As she was injured by the trap and appeared to be dying I had her killed as well as 2 of her pups and sent the skins and skulls to the Indian Museum.

One or two of the pups are still alive in Gilgit. They are almost entirely like the village dog sire and show little sign of the wolf strain or of the characteristics of the mother except that they are shyer and more furtive in their movements than ordinary puppies. Apart however from the evidence of the men who brought in the pups I am satisfied from their wild behaviour when brought to me and which they had not abandoned entirely several weeks after capture when last I saw them that they were really the offspring of the wild bitch. I put the pups to the mother when she was brought in to Gilgit and she allowed them to try and suckle her and though injured did nothing to harm them and appeared pleased to have them near her.

According to the villagers' statement the litter of last year which

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was killed off was exactly like that of this year, *i.e.*, the puppies all took after the domestic dog sire and not the wild mother.

On the other hand the litter of 1899 included my bitch "Jungly" and, according to the villagers, several other puppies like her which escaped. All of these had fur of the wild wolf colour and in appearance were nearer to the wolf than to the domestic dog.

One of them is probably the mother of this year's puppies, viz., the specimen which is now in the Indian Museum, and at least one other exactly like her in shape though with very light coloured almost white fore-legs was seen by me twice during the winter of 1900-1901 when ont shooting between Gilgit and Minawar. These two animals have been known to kill village sheep and goats and have also been seen stalking herds of wild Oorial (O. vignii).

The hills round Minawar are infested with real wolves, more being caught and killed there each year than anywhere else in the district. My theory as to the origin of these animals is the following. That in the first instance, possibly in the winter of 1897-98 a dog wolf lured away a domestic dog bitch from the village of Minawar, or possibly that an old wolf bitch discarded by her own kind or injured in some way accepted the services of a Minawar village dog.

There would seem to have been a litter in 1898, if the animal I saw in the winter of 1898-99 was really one of these hybrids.

Since then at any rate it is certain that at least 3 litters of hybrids have been produced, and it seems probable that the last two, *i.e.*, those born in 1900 and in 1901, were a second cross from the true wolf. As one or more of the puppies of the 1899 litter some of which escaped when my 'Juugly' was caught, would seem to have followed the bad example of their mother and to have consorted with the Minawar village dogs. This may account for their offspring being so much more like the true dog than they themselves.

An attempt made to breed from my "Jungly" unfortunately failed. She was served by a half bred retriever spaniel in December, 1900. About the usual period for canine gestation she gave signs of being in pup. Her milk glands filled and she became unusually quiet and gentle and displayed great affection for the pups of another dog bitch which had been born shortly before. Usually she cannot be trusted unmuzzled with strange dogs or puppies. Nothing however resulted from herself.

"Jungly's" character is interesting and perhaps worth a short description. Though she has been brought up with domestic dogs from the time she was a month or so old her wild institucts are by no means subdued. She will still hunt anything she can unless carefully watched

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and rated. She is inclined to bully small dogs, even those she knows well, especially of the weaker sex.

Her intelligence is considerable and though still shy of men and of strangers she shows affection for me and follows me well both on foot and when riding.

As an instance of her retentive memory the following anecdote may be of interest. When she was quite a small puppy a rather short tempered fox-terrier was sent me to take care of during the summer. This dog attacked her on one occasion and bit off the tip of her ear. Several months later when she had grown to nearly full size the dog and his owner were walking round the Kennels, when the latter asked me to let 'Jungly' loose. Without thinking I did so and she at once savaged the little dog, which she undoubtedly remembered, and was with difficulty prevented from killing him. Since then she has always been suspicious of white dogs, and is generally inclined to attack dogs of that colour, though usually indifferent to others unless excited or aggrieved herself.

From regular feeding and the care taken of her 'Jungly' has grown a good deal heavier than the "wild specimen" killed this year in Gilgit and sent to the Museum. Her coat also is not quite so dark, but in all other respects she appeared to me identical when they were compared. Her weight and measurements are as follows :---

Dimensions. Head and body 43 inches, tail without hair $13\frac{1}{4}$, with hair $14\frac{3}{4}$; Tarsus and hind foot, anterior aspect=7 inches, posterior aspect=9 inches; Height at shoulder 24 inches; round skull and jaws in front of ears over hair 18 inches. Weight=about 60 lbs.

VII.—New species of Indian Hymenoptera.—By MAJOR C. G. NURSE. [Read 6th November, 1901.]

I venture to send descriptions of some new species of Apidw, which neither Mr. P. Cameron nor I have been able to identify with any described species. These are a portion of my collection of Hymenoptera made during the past three or four years, some of which have already been described by Colonel Bingham and Mr. Cameron, and the latter is still engaged in working out the remainder. I obtained altogether some 450 species, counting only the families dealt with by Colonel Bingham in his Hymenoptera, Vol. I of the Fauna of British India Series, and of these nearly a fourth appear to be hitherto undescribed.

1. HALICTUS KRISHNA, n. sp.

ç. Head and thorax closely and finely punctured, basal segment of